As noted, the WEPCO rulemaking was expressly limited to existing electric utility steam generating units [see, e.g., 40 CFR 51.165(a)(1)(v)(C)(8) and 51.165(a)(1)(xx)]. The EPA limited the rulemaking to utilities because of the impending acid rain requirements under title IV of the Act, EPA's extensive experience with new source applicability issues for electric utilities, the general similarity of equipment, and the public availability of utility operating projections. The EPA indicated it would consider adopting a formal NSR pollution control project exclusion for other source categories as part of a separate NSR rulemaking. The rulemaking in question is now expected to be finalized by early 1996. On the other hand, the WEPCO rulemaking also noted that EPA's existing policy was, and would continue to be, to allow permitting authorities to exclude pollution control projects in other source categories on a case-by-case basis.

III. Case-By-Case Pollution Control Project Determinations

The following sections describe the type of projects that may be considered by permitting authorities for exclusion from major NSR as pollution control projects and two safeguards that permitting authorities are to use in evaluating such projects--the environmentally-beneficial test and an air quality impact assessment. To a large extent, these requirements are drawn from the WEPCO rulemaking. However, because the WEPCO rule was designed for a single source category, electric utilities, it cannot and does not serve as a complete template for this guidance. Therefore, the following descriptions expand upon the WEPCO rule in the scope of qualifying projects and in the specific elements inherent in the safeguards. These changes reflect the far more complicated task of evaluating pollution control projects at a wide variety of sources facing a myriad of Federal, State, and local clean air requirements.

Since the safeguards are an integral component of the exclusion, States must have the authority to impose the safeguards in approving an exclusion from major NSR under this policy. Thus, State or local permitting authorities in order to use this policy should provide statements to EPA describing and affirming the basis for its authority to impose these safeguards absent major NSR. Sources that obtain exclusions from permitting authorities that have not provided this affirmation of authority are at risk in seeking to rely on the exclusion issued by the

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(including visibility)." Based on this statutory provision, EPA believes that the proper focus of any air quality assessment for a pollution control project should be on visibility and any other relevant AQRV's for any class I areas that may be affected by the proposed project. Permitting authorities should notify Federal Land Managers where appropriate concerning pollution control projects which may adversely affect AQRV's in class I areas.

permitting agency, because EPA may subsequently determine that the project does not qualify as a pollution control project under this policy.

A. Types of Projects Covered

1. Add-On Controls and Fuel Switches

In the WEPCO rulemaking, EPA found that both add-on emissions control projects and fuel switches to less-polluting fuels could be considered to be pollution control projects. For the purposes of today's guidance, EPA affirms that these types of projects are appropriate candidates for a case-by-case exclusion as well. These types of projects include:

- the installation of conventional and advanced flue gas desulfurization and sorbent injection for SO_2;
- electrostatic precipitators, baghouses, high efficiency multiclones, and scrubbers for particulate or other pollutants;
- flue gas recirculation, low-NO_x burners, selective non-catalytic reduction and selective catalytic reduction for NO_x; and
- regenerative thermal oxidizers (RTO), catalytic oxidizers, condensers, thermal incinerators, flares and carbon adsorbers for volatile organic compounds (VOC) and toxic air pollutants.

Projects undertaken to accommodate switching to an inherently less-polluting fuel such as natural gas can also qualify for the exclusion. Any activity that is necessary to accommodate switching to a inherently less-polluting fuel is considered to be part of the pollution control project. In some instances, where the emissions unit's capability would otherwise be impaired as a result of the fuel switch, this may involve certain necessary changes to the pollution generating equipment (e.g., boiler) in order to maintain the normal operating capability of the unit at the time of the project.

2. Pollution Prevention Projects

It is EPA's policy to promote pollution prevention approaches and to remove regulatory barriers to sources seeking to develop and implement pollution prevention solutions to the extent allowed under the Act. For this reason, permitting authorities may also apply this exclusion to switches to inherently less-polluting raw materials and processes and certain

other types of "pollution prevention" projects.[4] For instance, many VOC users will be making switches to water-based or powder-paint application systems as a strategy for meeting reasonably available control technology (RACT) or switching to a non-toxic VOC to comply with maximum achievable control technology (MACT) requirements.

Accordingly, under today's guidance, permitting authorities may consider excluding raw material substitutions, process changes and other pollution prevention strategies where the pollution control aspects of the project are clearly evident and will result in substantial emissions reductions per unit of output for one or more pollutants. In judging whether a pollution prevention project can be considered for exclusion as a pollution control project, permitting authorities may also consider as a relevant factor whether a project is being undertaken to bring a source into compliance with a MACT, RACT, or other Act requirement.

Although EPA is supportive of pollution control and prevention projects and strategies, special care must be taken in classifying a project as a pollution control project and in evaluating a project under a pollution control project exclusion. Virtually every modernization or upgrade project at an existing industrial facility which reduces inputs and lowers unit costs has the concurrent effect of lowering an emissions rate per unit of fuel, raw material or output. Nevertheless, it is clear that these major capital investments in industrial equipment are the very types of projects that Congress intended to address in the new source modification provisions [see Wisconsin Electric Power Co. v. Reilly, 893 F.2d 901, 907-10 (7th Cir. 1990) (rejecting contention that utility life extension project was not a physical or operational change); Puerto Rican Cement Co., Inc. v. EPA, 889 F.2d 292, 296-98 (1st Cir. 1989) (NSR applies to modernization project that decreases emissions per unit of output, but increases economic efficiency such that utilization may increase and result in net increase in actual emissions)]. Likewise, the replacement of an existing emissions unit with a newer or different one (albeit more efficient and less polluting) or the

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[4]For purposes of this guidance, pollution prevention means any activity that through process changes, product reformulation or redesign, or substitution of less polluting raw materials, eliminates or reduces the release of air pollutants and other pollutants to the environment (including fugitive emissions) prior to recycling, treatment, or disposal; it does not mean recycling (other than certain "in-process recycling" practices), energy recovery, treatment, or disposal [see Pollution Prevention Act of 1990 section 6602(b) and section 6603(5)(A) and (B); see also "EPA Definition of 'Pollution Prevention,'" memorandum from F. Henry Habicht II, May 28, 1992].

reconstruction of an existing emissions unit would not qualify as a pollution control project. Adopting a policy that automatically excludes from NSR any project that, while lowering operating costs or improving performance, coincidentally lowers a unit's emissions rate, would improperly exclude almost all modifications to existing emissions units, including those that are likely to increase utilization and therefore result in overall higher levels of emissions.

In order to limit this exclusion to the subset of pollution prevention projects that will in fact lower annual emissions at a source, permitting authorities should not exclude as pollution control projects any pollution prevention project that can be reasonably expected to result in an increase in the utilization of the affected emissions unit(s). For example, projects which significantly increase capacity, decrease production costs, or improve product marketability can be expected to affect utilization patterns. With these changes, the environment may or may not see a reduction in overall source emissions; it depends on the source's operations after the change, which cannot be predicted with any certainty.[5] This is not to say that these types of projects are necessarily subject to major NSR requirements, only that they should not be excluded as pollution control projects under this guidance. The EPA may consider different approaches to excluding pollution prevention projects from major NSR requirements in the upcoming NSR rulemaking. Under this guidance, however, permitting authorities should carefully review proposed pollution prevention projects to evaluate whether utilization of the source will increase as a result of the project.

Furthermore, permitting authorities should have the authority to monitor utilization of an affected emissions unit or source for a reasonable period of time subsequent to the project to verify what effect, if any, the project has on utilization. In cases where the project has clearly caused an increase in utilization, the permitting authority may need to reevaluate the basis for the original exclusion to verify that an exclusion is still appropriate and to ensure that all applicable safeguards are being met.

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[5]This is in marked contrast to the addition of pollution control equipment which typically does not, in EPA's experience, result in any increase in the source's utilization of the emission unit in question. In the few instances where this presumption is not true, the safeguards discussed in the next section should provide adequate environmental protections for these additions of pollution control equipment.

B. Safeguards

The following safeguards are necessary to assure that projects being considered for an exclusion qualify as environmentally beneficial pollution control projects and do not have air quality impacts which would preclude the exclusion. Consequently, a project that does not meet these safeguards does not qualify for an exclusion under this policy.

1. Environmentally-Beneficial Test

Projects that meet the definition of a pollution control project outlined above may nonetheless cause collateral emissions increases or have other adverse impacts. For instance, a large VOC incinerator, while substantially eliminating VOC emissions, may generate sizeable NO_x emissions well in excess of significance levels. To protect against these sorts of problems, EPA in the WEPCO rule provided for an assessment of the overall environmental impact of a project and the specific impact, if any, on air quality. The EPA believes that this safeguard is appropriate in this policy as well.

Unless information regarding a specific case indicates otherwise, the types of pollution control projects listed in III. A. 1. above can be presumed, by their nature, to be environmentally beneficial. This presumption arises from EPA's experience that historically these are the very types of pollution controls applied to new and modified emissions units. The presumption does not apply, however, where there is reason to believe that 1) the controls will not be designed, operated or maintained in a manner consistent with standard and reasonable practices; or 2) collateral emissions increases have not been adequately addressed as discussed below.

In making a determination as to whether a project is environmentally beneficial, the permitting authority must consider the types and quantity of air pollutants emitted before and after the project, as well as other relevant environmental factors. While because of the case-by-case nature of projects it is not possible to list all factors which should be considered in any particular case, several concerns can be noted.

First, pollution control projects which result in an increase in non-targeted pollutants should be reviewed to determine that the collateral increase has been minimized and will not result in environmental harm. Minimization here does not mean that the permitting agency should conduct a BACT-type review or necessarily prescribe add-on control equipment to treat the collateral increase. Rather, minimization means that, within the physical configuration and operational standards usually associated with such a control device or strategy, the

source has taken reasonable measures to keep any collateral increase to a minimum. For instance, the permitting authority could require that a low-NO_x burner project be subject to temperature and other appropriate combustion standards so that carbon monoxide (CO) emissions are kept to a minimum, but would not review the project for a CO catalyst or other add-on type options. In addition, a State's RACT or MACT rule may have explicitly considered measures for minimizing a collateral increase for a class or category of pollution control projects and requires a standard of best practices to minimize such collateral increases. In such cases, the need to minimize collateral increase from the covered class or category of pollution control projects can be presumed to have been adequately addressed in the rule.

In addition, a project which would result in an unacceptable increased risk due to the release of air toxics should not be considered environmentally beneficial. It is EPA's experience, however, that most projects undertaken to reduce emissions, especially add-on controls and fuel switches, result in concurrent reductions in air toxics. The EPA expects that many pollution control projects seeking an exclusion under this guidance will be for the purpose of complying with MACT requirements for reductions in air toxics. Consequently, unless there is reason to believe otherwise, permitting agencies may presume that such projects by their nature will result in reduced risks from air toxics.

2. Additional Air Quality Impacts Assessments

(a) General

Nothing in the Act or EPA's implementing regulations would allow a permitting authority to approve a pollution control project resulting in an emissions increase that would cause or contribute to a violation of a NAAQS or PSD increment, or adversely impact visibility or other AQRV in a class I area [see, e.g., Act sections 110(a)(2)(C), 165, 169A(b), 173]. Accordingly, this guidance is not intended to allow any project to violate any of these air quality standards.

As discussed above, it is possible that a pollution control project--either through an increase in an emissions rate of a collateral pollutant or through a change in utilization--will cause an increase in actual emissions, which in turn could cause or contribute to a violation of a NAAQS or increment or adversely impact AQRV's. For this reason, in the WEPCO rule the EPA required sources to address whenever 1) the proposed change would result in a significant net increase in actual emissions of any criteria pollutant over levels used for that source in the most recent air quality impact analysis; and 2) the permitting

authority has reason to believe that such an increase would cause or contribute to a violation of a NAAQS, increment or visibility limitation. If an air quality impact analysis indicates that the increase in emissions will cause or contribute to a violation of any ambient standard, PSD increment, or AQRV, the pollution control exclusion does not apply.

The EPA believes that this safeguard needs to be applied here as well. Thus, where a pollution control project will result in a significant increase in emissions and that increased level has not been previously analyzed for its air quality impact and raises the possibility of a NAAQS, increment, or AQRV violation, the permitting authority is to require the source to provide an air quality analysis sufficient to demonstrate the impact of the project. The EPA will not necessarily require that the increase be modeled, but the source must provide sufficient data to satisfy the permitting authority that the new levels of emissions will not cause a NAAQS or increment violation and will not adversely impact the AQRV's of nearby potentially affected class I areas.

In the case of nonattainment areas, the State or the source must provide offsetting emissions reductions for any significant increase in a nonattainment pollutant from the pollution control project. In other words, if a significant collateral increase of a nonattainment pollutant resulting from a pollution control project is not offset on at least a one-to-one ratio then the pollution control project would not qualify as environmentally beneficial.[6] However, rather than having to apply offsets on a case-by-case basis, States may consider adopting (as part of their attainment plans) specific control measures or strategies for the purpose of generating offsets to mitigate the projected collateral emissions increases from a class or category of pollution control projects.

(b) Determination of Increase in Emissions

The question of whether a proposed project will result in an emissions increase over pre-modification levels of actual emissions is both complicated and contentious. It is a question that has been debated by the New Source Review Reform Subcommittee of the Clean Air Act Advisory Committee and is expected to be revisited by EPA in the same upcoming rulemaking that will consider adopting a pollution control project exclusion. In the interim, EPA is adopting a simplified approach

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[6]Regardless of the severity of the classification of the nonattainment area, a one-to-one offset ratio will be considered sufficient under this policy to mitigate a collateral increase from a pollution control project. States may, however, require offset ratios that are greater than one-to-one.

to determining whether a pollution control project will result in increased emissions.

The approach in this policy is premised on the fact that EPA does not expect the vast majority of these pollution control projects to change established utilization patterns at the source. As discussed in the previous section, it is EPA's experience that add-on controls do not impact utilization, and pollution prevention projects that could increase utilization may not be excluded under this guidance. Therefore, in most cases it will be very easy to calculate the emissions after the change: the product of the new emissions rate times the existing utilization rate. In the case of a pollution control project that collaterally increases a non-targeted pollutant, the actual increase (calculated using the new emissions rate and current utilization pattern) would need to be analyzed to determine its air quality impact.

The permitting authority may presume that projects meeting the definition outlined in section III(A)(1) will not change utilization patterns. However, the permitting authority is to reject this presumption where there is reason to believe that the project will result in debottlenecking, loadshifting to take advantage of the control equipment, or other meaningful increase in the use of the unit above current levels. Where the project will increase utilization and emissions, the associated emissions increases are calculated based on the post-modification potential to emit of the unit considering the application of the proposed controls. In such cases the permitting agency should consider the projected increase in emissions as collateral to the project and determine whether, notwithstanding the emissions increases, the project is still environmentally beneficial and meets all applicable safeguards.

In certain limited circumstances, a permitting agency may take action to impose federally-enforceable limits on the magnitude of a projected collateral emissions increase to ensure that all safeguards are met. For example, where the data used to assess a projected collateral emissions increase is questionable and there is reason to believe that emissions in excess of the projected increase would violate an applicable air quality standard or significantly exceed the quantity of offsets provided, restrictions on the magnitude of the collateral increase may be necessary to ensure compliance with the applicable safeguards.

IV. Procedural Safeguards

Because EPA has not yet promulgated regulations governing a generally applicable pollution control project exclusion from major NSR (other than for electric utilities), permitting authorities must consider and approve requests for an exclusion

on a case-by-case basis, and the exclusion is not self-executing. Instead, sources must receive case-by-case approval from the permitting authority pursuant to a minor NSR permitting process, State nonapplicability determination or similar process. [Nothing in this guidance voids or creates an exclusion from any applicable minor source preconstruction review requirement in any SIP that has been approved pursuant to section 110(a)(2)(C) and 40 CFR 51.160-164.] This process should also provide that the application for the exclusion and the permitting agency's proposed decision thereon be subject to public notice and the opportunity for public and EPA written comment. In those limited cases where the applicable SIP already exempts a class or category of pollution controls project from the minor source permitting public notice and comment requirements, and where no collateral increases are expected (e.g., the installation of a baghouse) and all otherwise applicable environmental safeguards are complied with, public notice and comment need not be provided for such projects. However, even in such circumstances, the permitting agency should provide advance notice to EPA when it applies this policy to provide an exclusion. For standard-wide applications to groups of sources (e.g., RACT or MACT), the notice may be provided to EPA at the time the permitting authority intends to issue a pollution control exclusion for the class or category of sources and thereafter notice need not be given to EPA on an individual basis for sources within the noticed group.

V. Emission Reduction Credits

In general, certain pollution control projects which have been approved for an exclusion from major NSR may result in emission reductions which can serve as NSR offsets or netting credits. All or part of the emission reductions equal to the difference between the pre-modification actual and post-modification potential emissions for the decreased pollutant may serve as credits provided that 1) the project will not result in a significant collateral increase in actual emissions of any criteria pollutant, 2) the project is still considered environmentally beneficial, and 3) all otherwise applicable criteria for the crediting of such reductions are met (e.g., quantifiable, surplus, permanent, and enforceable). Where an excluded pollution control project results in a significant collateral increase of a criteria pollutant, emissions reduction credits from the pollution control project for the controlled pollutant may still be granted provided, in addition to 2) and 3) above, the actual collateral increase is reduced below the applicable significance level, either through contemporaneous reductions at the source or external offsets. However, neither the exclusion from major NSR nor any credit (full or partial) for emission reductions should be granted by the permitting authority where the type or amount of the emissions increase which would result from the use of such credits would lessen the

environmental benefit associated with the pollution control project to the point where the project would not have initially qualified for an exclusion.

IV. Illustrative Examples

The following examples illustrate some of the guiding principles and safeguards discussed above in reviewing proposed pollution control projects for an exclusion from major NSR.

Example 1

PROJECT DESCRIPTION: A chemical manufacturing facility in an attainment area for all pollutants is proposing to install a RTO to reduce VOC emissions (including emissions of some hazardous pollutants) at the plant by about 3000 tons per year (tpy). The emissions reductions from the RTO are currently voluntary, but may be necessary in the future for title III MACT compliance. Although the RTO has been designed to minimize NO_x emissions, it will produce 200 tpy of new NO_x emissions due to the unique composition of the emissions stream. There is no information about the project to rebut a presumption that the project will not change utilization of the source. Aside from the NO_x increase there are no other environmental impacts known to be associated with the project.

EVALUATION: As a qualifying add-on control device, the project may be considered a pollution control project and may be considered for an exclusion. The permitting agency should: 1) verify that the NO_x increase has been minimized to the extent practicable, 2) confirm (through modeling or other appropriate means) that the actual significant increase in NO_x emissions does not violate the applicable NAAQS,[7] PSD increment, or adversely impact any Class I area AQRV, and 3) apply all otherwise applicable SIP and minor source permitting requirements, including opportunity for public notice and comment.

Example 2

PROJECT DESCRIPTION: A source proposes to replace an existing coal-fired boiler with a gas-fired turbine as part of a cogeneration project. The new turbine is an exact replacement for the energy needs supplied by the existing boiler and will emit less of each pollutant on an hourly basis than the boiler did.

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[7]If the source were located in an area in which nonattainment NSR applied to NO_x emissions increases, 200 tons of NO_x offset credits would be required for the project to be eligible for an exclusion.

EVALUATION: The replacement of an existing emissions unit with a new unit (albeit more efficient and less polluting) does not qualify for an exclusion as a pollution control project. The company can, however, use any otherwise applicable netting credits from the removal of the existing boiler to seek to net the new unit out of major NSR.

Example 3

PROJECT DESCRIPTION: A source plans to physically renovate and upgrade an existing process line by making certain changes to the existing process, including extensive modifications to emissions units. Following the changes, the source will expand production and manufacture and market a new product line. The project will cause an increase in the economic efficiency of the line. The renovated line will also be less polluting on a per-product basis than the original configuration.

EVALUATION: The change is not eligible for an exclusion as a pollution control project. On balance, the project does not have clearly evident pollution control aspects, and the resultant decrease in the per-product emissions rate (or factor) is incidental to the project. The project is a physical change or change in the method of operation that will increase efficiency and productivity.

Example 4

PROJECT DESCRIPTION: In response to the phaseout of chlorofluorocarbons (CFC) under title VI of the Act, a major source is proposing to substitute a less ozone-depleting substance (e.g., HCFC-141b) for one it currently uses that has a greater ozone depleting potential (e.g., CFC-11). A larger amount of the less-ozone depleting substance will have to be used. No other changes are proposed.

EVALUATION: The project may be considered a pollution control project and may be considered for an exclusion. The permitting agency should verify that 1) actual annual emissions of HCFC-141b after the proposed switch will cause less stratospheric ozone depletion than current annual emissions of CFC-11; 2) the proposed switch will not change utilization patterns or increase emissions of any other pollutant which would impact a NAAQS, PSD increment, or AQRV and will not cause any cross-media harm, including any unacceptable increased risk associated with toxic air pollutants; and 3) apply all otherwise applicable SIP and minor source permitting requirements, including opportunity for public notice and comment.

Example 5

PROJECT DESCRIPTION: An existing landfill proposes to install either flares or energy recovery equipment [i.e., turbines or internal combustion (IC) engines]. The reductions from the project are estimated at over 1000 tpy of VOC and are currently not necessary to meet Act requirements, but may be necessary some time in the future. In case A the project is the replacement of an existing flare or energy system and no increase in NO_x emissions will occur. In case B, the equipment is a first time installation and will result in a 100 tpy increase in NO_x. In case C, the equipment is an addition to existing equipment which will accommodate additional landfill gas (resulting from increased gas generation and/or capture consistent with the current permitted limits for growth at the landfill) and will result in a 50 tpy increase in NO_x.

EVALUATION: Projects A, B, and C may be considered pollution control projects and may be considered for an exclusion; however, in cases B and C, if the landfill is located in an area required to satisfy nonattainment NSR for NO_x emissions, the source would be required to obtain NO_x offsets at a ratio of at least 1:1 for the project to be considered for an exclusion. [NOTE: VOC-NO_x netting and trading for NSR purposes may be discussed in the upcoming NSR rulemaking, but it is beyond the scope of this guidance.] Although neither turbines or IC engines are listed in section III.A.1 as add-on control devices and would normally not be considered pollution control projects, in this specific application they serve the same function as a flare, namely to reduce VOC emissions at the landfill with the added incidental benefit of producing useful energy in the process.[8]

The permitting agency should: 1) verify that the NO_x increase has been minimized to the extent practicable; 2) confirm (through modeling or other appropriate means) that the actual significant increase in NO_x emissions will not violate the

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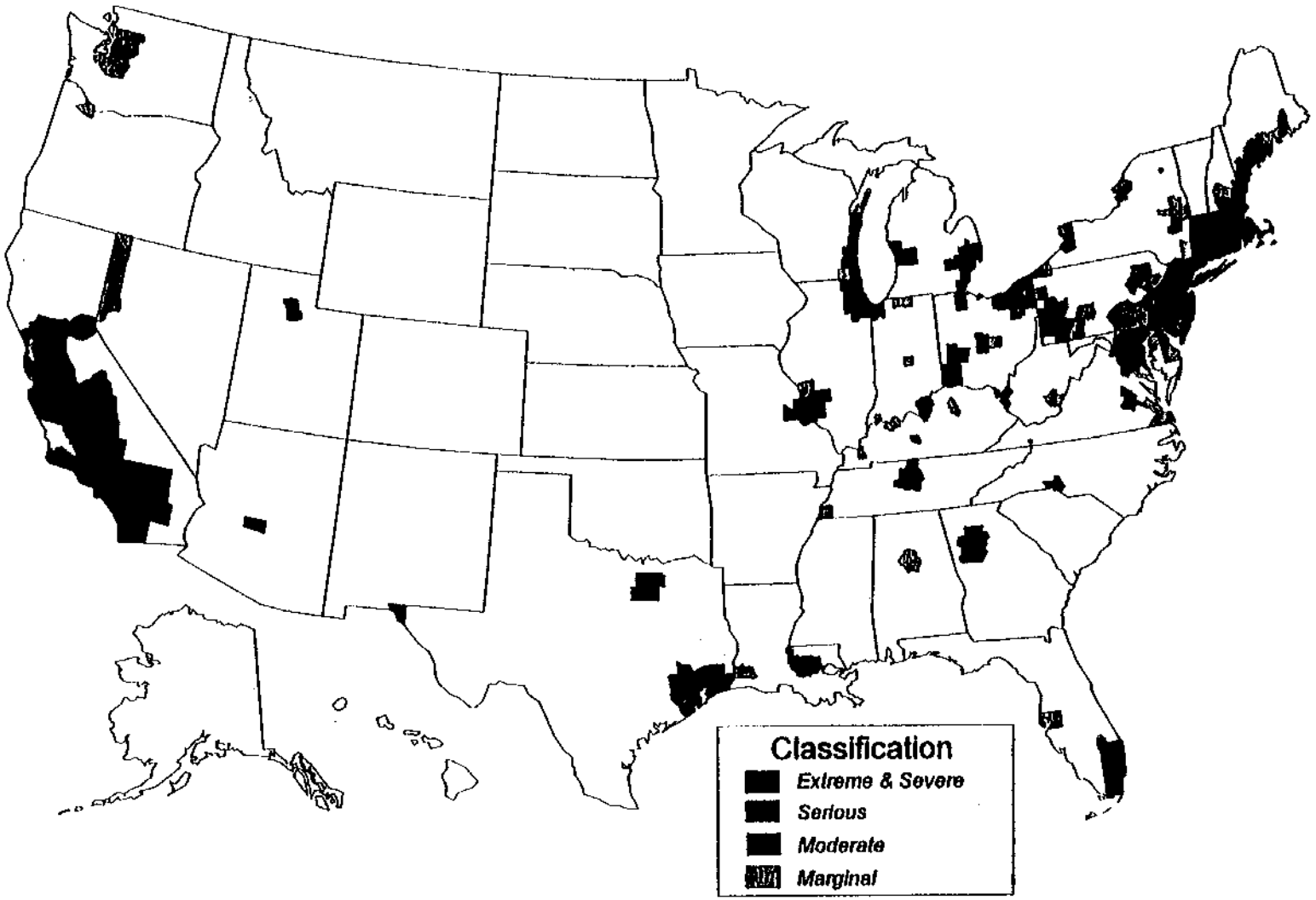
[8]The production of energy here is incidental to the project and is not a factor in qualifying the project for an exclusion as a pollution control project. In addition, any supplemental or co-firing of non-landfill gas fuels (e.g., natural gas, oil) would disqualify the project from being considered a pollution control project. The fuels would be used to maximize any economic benefit from the project and not for the purpose of pollution control at the landfill. However, the use of an alternative fuel solely as a backup fuel to be used only during brief and infrequent start-up or emergency situations would not necessarily disqualify an energy recovery project from being considered a pollution control project.

applicable NAAQS, PSD increment, or adversely impact any AQRV; and 3) apply all otherwise applicable SIP and minor source and, as noted above, in cases B and C ensures that NO_x offsets are provided in an area in which nonattainment review applies to NO_x emissions increases. permitting requirements, including opportunity for public notice and comment.

APPENDIX F

MAP AND LISTING OF NONATTAINMENT AREAS

Areas Designated Nonattainment for Ozone



Designated Nonattainment Areas as of September 1994

Note: Unclassified areas are not shown.

Table 1. Ozone Nonattainment Areas - Air Quality Update, 1991-93

State	Nonattainment Area Name	Clean Air Act Classification	1991-93 Update A.Q. Value	1991-93 Update Average Est. Exc.	1993 2nd Daily Max 1-hr	1993 Estimated Exceedances
AL	Birmingham NA Area	Marginal	0.124	0.7	0.125	2.0
AZ	Phoenix	Moderate	0.147	4.0 (#4)	0.126	2.0
CA	Los Angeles South Coast Air Basin	Extreme	0.300	104.3	0.250	97.6
CA	Monterey Bay Unified NA Area	Moderate	0.108	0.4	0.104	0.0
CA	Sacramento Metro NA Area	Serious	0.150	9.7	0.150	3.6
CA	San Diego NA Area	Severe 15	0.150	11.8	0.159	4.0
CA	San Francisco-Bay NA Area	Moderate	0.120	0.7	0.130	2.0
CA	San Joaquin Valley NA Area	Serious	0.159	18.9	0.159	27.5
CA	Santa Barbara-Santa Maria-Lompoc	Moderate	0.123	1.0	0.114	0.0
CA	Southeast Desert Modified AQMD	Severe 17	0.200	59.3	0.180	72.6
CA	Ventura Co NA Area	Severe 15	0.150	15.9	0.144	9.0
CT	Greater Connecticut NA Area	Serious	0.158	7.5	0.153	6.0
DC-MD-VA	Washington NA Area	Serious	0.137	1.4	0.132	3.1
DE	Sussex Co NA Area	Marginal	0.118	1.0	0.115	0.0
FL	Miami-Fort Lauderdale-W. Palm Beach	Moderate	0.106	0.0	0.122	1.0
FL	Tampa-St. Petersburg-Clearwater	Marginal	0.110	0.0	0.100	0.0
GA	Atlanta NA Area	Serious	0.149	4.2	0.162	4.3
IL-IN	Chicago-Gary-Lake County NA Area	Severe 17	0.145	4.7 (#5)	0.125	2.4
IL	Jersey Co NA Area	Marginal	0.112	0.7	0.127	2.0
IN	Evansville NA Area	Marginal	0.110	0.0	0.110	0.0
IN	Indianapolis NA Area	Marginal	0.104	0.0	0.104	0.0
IN	South Bend-Elkhart NA Area	Marginal	0.103	0.0	0.096	0.0
KY	Edmonson Co NA Area	Marginal	0.091	0.0	0.092	0.0
KY-WV	Huntington-Ashland NA Area	Moderate	0.122	1.0	0.122	1.0
KY	Lexington-Fayette NA Area	Marginal	0.100	0.0	0.103	0.0
KY-IN	Louisville NA Area	Moderate	0.130	2.2	0.140	2.0
KY	Owensboro NA Area	Marginal	0.104	0.0	0.106	0.0
KY	Paducah NA Area	Marginal	0.106	0.0	0.112	0.0
LA	Baton Rouge NA Area	Serious	0.135	1.8	0.127	3.0
LA	Lake Charles NA Area	Marginal	0.132	1.3 (#6)	0.108	0.0
MA-NH	Boston-Lawrence-Worcester NA Area	Serious	0.137	3.1	0.155	4.0
MA	Springfield (W. Mass) NA Area	Serious	0.141	4.6	0.133	6.2
MD	Baltimore NA Area	Severe 15	0.150	4.8	0.146	6.2
MD	Kent County and Queen Anne's County	Marginal	0.133	2.8	0.128	2.0
ME	Hancock Co and Waldo Co NA Area	Marginal	0.112	1.3 (#7)	0.094	0.0
ME	Knox Co and Lincoln Co NA Area	Moderate	0.134	2.3	0.122	1.2
ME	Lewiston - Auburn NA Area	Moderate	0.106	0.3	0.096	0.0
ME	Portland NA Area	Moderate	0.147	11.8	0.125	3.8
MI	Detroit-Ann Arbor NA Area	Moderate	0.122	1.0	0.122	1.0

Table 1. Ozone Nonattainment Areas - Air Quality Update, 1991-93, continued

State	Nonattainment Area Name	Clean Air Act Classification	1991-93 Update A.Q. Value	1991-93 Update Average Est. Exc.	1993 2nd Daily Max 1-hr	1993 Estimated Exceedances
MI	Grands Rapids NA Area	Moderate	0.146	3.4 (#8)	0.094	1.0
MI	Muskegon NA Area	Moderate	0.141	2.3	0.104	1.0
MO-KS	Kansas City NA Area	Attainment	0.114	0.3	0.114	1.0
MO-IL	St. Louis NA Area	Moderate	0.132	1.7	0.126	2.1
NC	Charlotte-Gastonia NA Area	Moderate	0.119	0.7	0.137	2.1
NC	Greensboro-Winston-Salem-High Point	Attainment	0.113	0.3	0.121	1.0
NC	Raleigh-Durham NA Area	Attainment	0.118	0.7	0.128	2.1
NH	Manchester NA Area	Marginal	0.087	0.0	0.086	0.0
NH	Portsmouth-Dover-Rochester, NH	Serious	0.143	2.2	0.107	1.1
NJ	Atlantic City NA Area	Moderate	0.122	1.0	0.115	0.0
NV	Reno	Marginal	0.089	0.0	0.089	0.0
NY	Albany-Schenectady-Troy NA Area	Marginal	0.104	0.0	0.106	0.0
NY	Buffalo-Niagara Falls NA Area	Marginal	0.106	0.0	0.090	0.0
NY	Essex Co NA Area	Marginal	0.116	0.0	0.100	0.0
NY	Jefferson Co NA Area	Marginal	0.110	0.0	0.092	0.0
NY-NJ-CT	New York-N. New Jersey-Long Island	Severe 17	0.158	6.1	0.165	6.0
NY	Poughkeepsie NA Area	Marginal	0.126	1.4	0.139	2.0
OH	Canton NA Area	Marginal	0.109	0.3	0.109	0.0
OH-KY	Cincinnati-Hamilton NA Area	Moderate	0.125	1.3	0.121	1.0
OH	Cleveland-Akron-Lorain NA Area	Moderate	0.125	1.7 (#9)	0.117	0.0
OH	Columbus NA Area	Marginal	0.118	0.3	0.105	0.0
OH	Dayton-Springfield NA Area	Moderate	0.112	0.0	0.120	1.0
OH	Toledo NA Area	Moderate	0.120	0.3	0.121	1.0
OH-PA	Youngstown-Warren-Sharon NA Area	Marginal	0.113	0.3	0.120	1.0
OR	Portland-Vancouver AQMA NA Area	Marginal	0.108	0.7	0.103	0.0
PA-NJ	Allentown-Bethlehem-Easton NA Area	Marginal	0.115	0.0	0.110	0.0
PA	Altoona NA Area	Marginal	0.105	0.0	0.100	0.0
PA	Erie NA Area	Marginal	0.110	0.0	0.107	0.0
PA	Harrisburg-Lebanon-Carlisle NA	Marginal	0.111	0.0	0.118	0.0
PA	Johnstown NA Area	Marginal	0.107	0.0	0.099	0.0
PA	Lancaster NA Area	Marginal	0.118	0.3	0.118	1.0
PA-NJ-DE-MD	Philadelphia-Wilmington-Trenton	Severe 15	0.156	10.3	0.147	5.2
PA	Pittsburgh-Beaver Valley NA Area	Moderate	0.119	0.7	0.124	0.0
PA	Reading NA Area	Moderate	0.118	0.3	0.110	0.0
PA	Scranton-Wilkes-Barre NA Area	Marginal	0.117	0.4	0.112	0.0
PA	York NA Area	Marginal	0.113	0.0	0.112	0.0

Table 1. Ozone Nonattainment Areas - Air Quality Update, 1991-93, continued

State	Nonattainment Area Name	Clean Air Act Classification	1991-93 Update A.Q. Value	1991-93 Update Average Est. Exc.	1993 2nd Daily Max 1-hr	1993 Estimated Exceedances
RI	Providence (all of RI) NA Area	Serious	0.152	4.0	0.117	1.4
SC	Cherokee Co NA Area	Attainment	0.105	0.3	0.108	0.0
TN	Knoxville NA Area	Attainment	0.118	0.0	0.120	0.0
TN	Memphis NA Area	Marginal	0.115	0.3	0.119	1.0
TN	Nashville NA Area	Moderate	0.124	1.1	0.126	2.1
TX	Beaumont-Port Arthur NA Area	Serious	0.130	2.7	0.122	0.0
TX	Dallas-Fort Worth NA Area	Moderate	0.141	2.0	0.140	2.3
TX	El Paso NA Area	Serious	0.136	3.7	0.135	4.1
TX	Houston-Galveston-Brazoria NA	Severe 17	0.200	6.3	0.197	10.4
UT	Salt Lake City-Ogden NA Area	Moderate	0.106	0.0	0.104	0.0
VA	Norfolk-Virginia Beach-Newport News	Marginal	0.131	1.7	0.131	3.0
VA	Richmond-Petersburg NA Area	Moderate	0.128	1.4	0.132	3.1
VA	Smyth County NA Area	Marginal	ND	ND (#10)	ND	ND
WA	Seattle - Tacoma NA Area	Marginal	0.105	0.0	0.100	0.0
WI	Door Co NA Area	Marginal	0.125	1.6	0.098	0.0
WI	Kewaunee Co NA Area	Moderate	0.107	0.8	0.095	0.0
WI	Manitowoc Co NA Area	Moderate	0.132	2.0	0.095	0.0
WI	Milwaukee-Racine NA Area	Severe 17	0.148	3.9	0.125	2.4
WI	Sheboygan NA Area	Moderate	0.139	2.6 (#11)	0.095	0.0
WI	Walworth Co NA Area	Marginal	0.120	0.3	0.093	0.0
WV	Charleston NA Area	Attainment	0.106	0.3	0.075	0.0
WV	Greenbrier NA Area	Marginal	0.101	0.4	0.090	0.0
WV	Parkersburg NA Area	Attainment	0.118	0.0	0.104	0.0

91 Nonattainment Areas

SOURCE: EPA's air quality data system, the Aerometric Information Retrieval System (AIRS), with supplemental data from EPA Regional Offices.

NOTES:

1. Designations and classifications for ozone nonattainment areas as published in the Federal Register, 40 CFR Part 81. *Unclassified and transitional nonattainment areas are not included in this listing.*

2. The updated air quality value is estimated for the 1991-93 period using EPA guidance for calculating design values (Laxton Memorandum, June 18, 1990). Generally, the fourth highest monitored value with 3 complete years of data is

selected as the updated air quality value because the standard allows one exceedance for each year. It is important to note that the 1990 Clean Air Act Amendments required that O_3 nonattainment areas be classified on the basis of the design value at the time the Amendments were passed, generally the 1987-89 period was used.

3. The National Ambient Air Quality standard for ozone is 0.12 parts per million (ppm) daily maximum 1-hour average not to be exceeded more than once per year on average. The average estimated number of exceedances column shows the number of days the 0.12 ppm standard was exceeded on average at the site recording the highest updated air quality value. This is done after adjustment for incomplete, or missing days, during the 3-year period, 1991-93. The last two columns contain data from the site recording the highest second daily maximum 1-hour concentration in 1993. The last column shows the estimated exceedances for 1993 at the site recording the highest second maximum 1-hour concentration listed in the previous column.

4. Special purpose monitoring (SPM) operating during the ozone monitoring season.

5. The nonattainment/updated air quality value site for the Chicago NA Area is in Kenosha County, WI.

6. The Regional Office is reviewing the status of the area based on data through 1994.

7. Incomplete data reported in 1991.

8. Calculation of the updated air quality value and estimated exceedances adjusted to account for start-up of a LMOS Study site with data only in 1991.

9. Data from a monitoring site located at the water treatment plant not used due to localized interference.

10. The site was located atop Whitetop Mountain, VA as part of the Mountain Cloud Study. Site elevation is 5520 feet. No data reported after 1988. This is a rural transport area. The nonattainment area is that portion of Whitetop Mountain above 4500 feet elevation.

11. Calculation of estimated exceedances adjusted for Wisconsin ozone season not yet reflected in AIRS.

Region I

Table 1. Ozone Nonattainment Areas - Air Quality Update, 1991-93

State	Nonattainment Area Name	Clean Air Act Classification	1991-93 Update A.Q. Value	1991-93 Update Average Est. Exc.	1993 2nd Daily Max 1-hr	1993 Estimated Exceedances
CT	Greater Connecticut NA Area	Serious	0.158	7.5	0.153	6.0
MA-NH	Boston-Lawrence-Worcester NA Area	Serious	0.137	3.1	0.155	4.0
MA	Springfield (W. Mass) NA Area	Serious	0.141	4.6	0.133	6.2
ME	Hancock Co and Waldo Co NA Area	Marginal	0.112	1.3 (#7)	0.094	0.0
ME	Knox Co and Lincoln Co NA Area	Moderate	0.134	2.3	0.122	1.2
ME	Lewiston - Auburn NA Area	Moderate	0.106	0.3	0.096	0.0
ME	Portland NA Area	Moderate	0.147	11.8	0.125	3.8
NH	Manchester NA Area	Marginal	0.087	0.0	0.086	0.0
NH	Portsmouth-Dover-Rochester, NH	Serious	0.143	2.2	0.107	1.1
NY-NJ-CT	New York-N. New Jersey-Long Island	Severe 17	0.158	6.1	0.165	6.0
RI	Providence (all of RI) NA Area	Serious	0.152	4.0	0.117	1.4

Region II

Table 1. Ozone Nonattainment Areas - Air Quality Update, 1991-93

State	Nonattainment Area Name	Clean Air Act Classification	1991-93 Update A.Q. Value	1991-93 Update Average Est. Exc.	1993 2nd Daily Max 1-hr	1993 Estimated Exceedances
NJ	Atlantic City NA Area	Moderate	0.122	1.0	0.115	0.0
NY	Albany-Schenectady-Troy NA Area	Marginal	0.104	0.0	0.106	0.0
NY	Buffalo-Niagara Falls NA Area	Marginal	0.106	0.0	0.090	0.0
NY	Essex Co NA Area	Marginal	0.116	0.0	0.100	0.0
NY	Jefferson Co NA Area	Marginal	0.110	0.0	0.092	0.0
NY-NJ-CT	New York-N. New Jersey-Long Island	Severe 17	0.158	6.1	0.165	6.0
NY	Poughkeepsie NA Area	Marginal	0.126	1.4	0.139	2.0
PA-NJ	Allentown-Bethlehem-Easton NA Area	Marginal	0.115	0.0	0.110	0.0
PA-NJ-DE-MD	Philadelphia-Wilmington-Trenton	Severe 15	0.156	10.3	0.147	5.2

Region III

Table 1. Ozone Nonattainment Areas - Air Quality Update, 1991-93

State	Nonattainment Area Name	Clean Air Act Classification	1991-93 Update A.Q. Value	1991-93 Update Average Est. Exc.	1993 2nd Daily Max 1-hr	1993 Estimated Exceedances
DC-MD-VA	Washington NA Area	Serious	0.137	1.4	0.132	3.1
DE	Sussex Co NA Area	Marginal	0.118	1.0	0.115	0.0
MD	Baltimore NA Area	Severe 15	0.150	4.8	0.146	6.2
MD	Kent County and Queen Anne's County	Marginal	0.133	2.8	0.128	2.0
OH-PA	Youngstown-Warren-Sharon NA Area	Marginal	0.113	0.3	0.120	1.0
PA-NJ	Allentown-Bethlehem-Easton NA Area	Marginal	0.115	0.0	0.110	0.0
PA	Altoona NA Area	Marginal	0.105	0.0	0.100	0.0
PA	Erie NA Area	Marginal	0.110	0.0	0.107	0.0
PA	Harrisburg-Lebanon-Carlisle NA	Marginal	0.111	0.0	0.118	0.0
PA	Johnstown NA Area	Marginal	0.107	0.0	0.099	0.0
PA	Lancaster NA Area	Marginal	0.118	0.3	0.118	1.0
PA-NJ-DE-MD	Philadelphia-Wilmington-Trenton	Severe 15	0.156	10.3	0.147	5.2
PA	Pittsburgh-Beaver Valley NA Area	Moderate	0.119	0.7	0.124	0.0
PA	Reading NA Area	Moderate	0.118	0.3	0.110	0.0
PA	Scranton-Wilkes-Barre NA Area	Marginal	0.117	0.4	0.112	0.0
PA	York NA Area	Marginal	0.113	0.0	0.112	0.0
WV	Charleston NA Area	Moderate	0.106	0.3	0.075	0.0
WV	Greenbrier NA Area	Marginal	0.101	0.4	0.090	0.0
WV	Parkersburg NA Area	Moderate	0.118	0.0	0.104	0.0
VA	Norfolk-Virginia Beach-Newport News	Marginal	0.131	1.7	0.131	3.0
VA	Richmond-Petersburg NA Area	Moderate	0.128	1.4	0.132	3.1
VA	Smyth County NA Area	Marginal	ND	ND (#10)	ND	ND

Region IV

Table 1. Ozone Nonattainment Areas - Air Quality Update, 1991-93

State	Nonattainment Area Name	Clean Air Act Classification	1991-93 Update A.Q. Value	1991-93 Update Average Est. Exc.	1993 2nd Daily Max 1-hr	1993 Estimated Exceedances
AL	Birmingham NA Area	Marginal	0.124	0.7	0.125	2.0
FL	Miami-Fort Lauderdale-W. Palm Beach	Moderate	0.106	0.0	0.122	1.0
FL	Tampa-St. Petersburg-Clearwater	Marginal	0.110	0.0	0.100	0.0
GA	Atlanta NA Area	Serious	0.149	4.2	0.162	4.3
KY	Edmonson Co NA Area	Marginal	0.091	0.0	0.092	0.0
KY-WV	Huntington-Ashland NA Area	Moderate	0.122	1.0	0.122	1.0
KY	Lexington-Fayette NA Area	Marginal	0.100	0.0	0.103	0.0
KY-IN	Louisville NA Area	Moderate	0.130	2.2	0.140	2.0
KY	Owensboro NA Area	Marginal	0.104	0.0	0.106	0.0
KY	Paducah NA Area	Marginal	0.106	0.0	0.112	0.0
NC	Charlotte-Gastonia NA Area	Moderate	0.119	0.7	0.137	2.1
NC	Greensboro-Winston-Salem-High Point	Attainment	0.113	0.3	0.121	1.0
NC	Raleigh-Durham NA Area	Attainment	0.118	0.7	0.128	2.1
OH-KY	Cincinnati-Hamilton NA Area	Moderate	0.125	1.3	0.121	1.0
SC	Cherokee Co NA Area	Attainment	0.105	0.3	0.108	0.0
TN	Knoxville NA Area	Attainment	0.118	0.0	0.120	0.0
TN	Memphis NA Area	Marginal	0.115	0.3	0.119	1.0
TN	Nashville NA Area	Moderate	0.124	1.1	0.126	2.1

Region V

Table 1. Ozone Nonattainment Areas - Air Quality Update, 1991-93

State	Nonattainment Area Name	Clean Air Act Classification	1991-93 Update A.Q. Value	1991-93 Update Average Est. Exc.	1993 2nd Daily Max 1-hr	1993 Estimated Exceedances
IL-IN	Chicago-Gary-Lake County NA Area	Severe 17	0.145	4.7 (#5)	0.125	2.4
IL	Jersey Co NA Area	Marginal	0.112	0.7	0.127	2.0
IN	Evansville NA Area	Marginal	0.110	0.0	0.110	0.0
IN	Indianapolis NA Area	Marginal	0.104	0.0	0.104	0.0
IN	South Bend-Elkhart NA Area	Marginal	0.103	0.0	0.096	0.0
MI	Detroit-Ann Arbor NA Area	Moderate	0.122	1.0	0.122	1.0
MI	Grands Rapids NA Area	Moderate	0.146	3.4 (#8)	0.094	1.0
MI	Muskegon NA Area	Moderate	0.141	2.3	0.104	1.0
OH	Canton NA Area	Marginal	0.109	0.3	0.109	0.0
OH-KY	Cincinnati-Hamilton NA Area	Moderate	0.125	1.3	0.121	1.0
OH	Cleveland-Akron-Lorain NA Area	Moderate	0.125	1.7 (#9)	0.117	0.0
OH	Columbus NA Area	Marginal	0.118	0.3	0.105	0.0
OH	Dayton-Springfield NA Area	Moderate	0.112	0.0	0.120	1.0
OH	Toledo NA Area	Moderate	0.120	0.3	0.121	1.0
OH-PA	Youngstown-Warren-Sharon NA Area	Marginal	0.113	0.3	0.120	1.0
WI	Door Co NA Area	Marginal	0.125	1.6	0.098	0.0
WI	Kewaunee Co NA Area	Moderate	0.107	0.8	0.095	0.0
WI	Manitowoc Co NA Area	Moderate	0.132	2.0	0.095	0.0
WI	Milwaukee-Racine NA Area	Severe 17	0.148	3.9	0.125	2.4
WI	Sheboygan NA Area	Moderate	0.139	2.6 (#11)	0.095	0.0
WI	Walworth Co NA Area	Marginal	0.120	0.3	0.093	0.0

Region VI

Table 1. Ozone Nonattainment Areas - Air Quality Update, 1991-93

State	Nonattainment Area Name	Clean Air Act Classification	1991-93 Update A.Q. Value	1991-93 Update Average Est. Exc.	1993 2nd Daily Max 1-hr	1993 Estimated Exceedances
LA	Baton Rouge NA Area	Serious	0.135	1.8	0.127	3.0
LA	Lake Charles NA Area	Marginal	0.132	1.3 (#6)	0.108	0.0
TX	Beaumont-Port Arthur NA Area	Serious	0.130	2.7	0.122	0.0
TX	Dallas-Fort Worth NA Area	Moderate	0.141	2.0	0.140	2.3
TX	El Paso NA Area	Serious	0.136	3.7	0.135	4.1
TX	Houston-Galveston-Brazoria NA	Severe 17	0.200	6.3	0.197	10.4

Region VII

Table 1. Ozone Nonattainment Areas - Air Quality Update, 1991-93

State	Nonattainment Area Name	Clean Air Act Classification	1991-93 Update A.Q. Value	1991-93 Update Average Est. Exc.	1993 2nd Daily Max 1-hr	1993 Estimated Exceedances
MO-KS	Kansas City NA Area	Attainment	0.114	0.3	0.114	1.0
MO-IL	St. Louis NA Area	Moderate	0.132	1.7	0.126	2.1